

[54] PLUMBING TOOL

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134/168 C

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15/104.3 R, 104.3 SN; 134/166 C, 167 C,
168 C

[56] References Cited

UNITED STATES PATENTS

267,306	11/1882	Gall	15/104.3 SN X
1,437,582	12/1922	Bahr	15/104.3 SN
1,845,442	2/1932	Robinson	134/167 C
1,900,275	3/1933	Carter et al.	15/104.3 SN
1,977,319	10/1934	McEwan	134/168 C
2,039,467	5/1936	Walsh	4/255
2,820,467	1/1958	Mattich	4/255 X
3,605,135	9/1971	Tan	4/256
3,641,597	2/1972	David et al.	4/255

Primary Examiner—Henry K. Artis

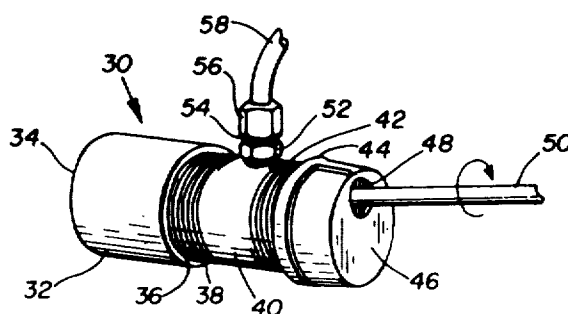
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[57]

ABSTRACT

A plumbing tool comprising an elongated cylindrical member composed of a cylindrical connector having internally threaded ends, one end of which is adapted to fit over the threaded end of a drain pipe; a large nipple having externally threaded ends has one end received in the threaded opening of the connector opposite from the drain pipe; a cap having a threaded opening is received on the other threaded end of the large nipple; the other end of the cap is closed except for an opening through which the plumber can insert the rotary cleaning tool through the plumbing tool and into the drain pipe; the rotary cable of the rotary cleaning tool can be fed into and out of the drain system through the hole in the cap; the plumbing tool also includes a small nipple which is threaded at both ends, with one end of the small nipple being received in a threaded opening intermediate the ends of the large nipple and at right angles thereto; the other threaded end of the small nipple connects with one end of the hose, the other end of which connects with a faucet.

2 Claims, 2 Drawing Figures



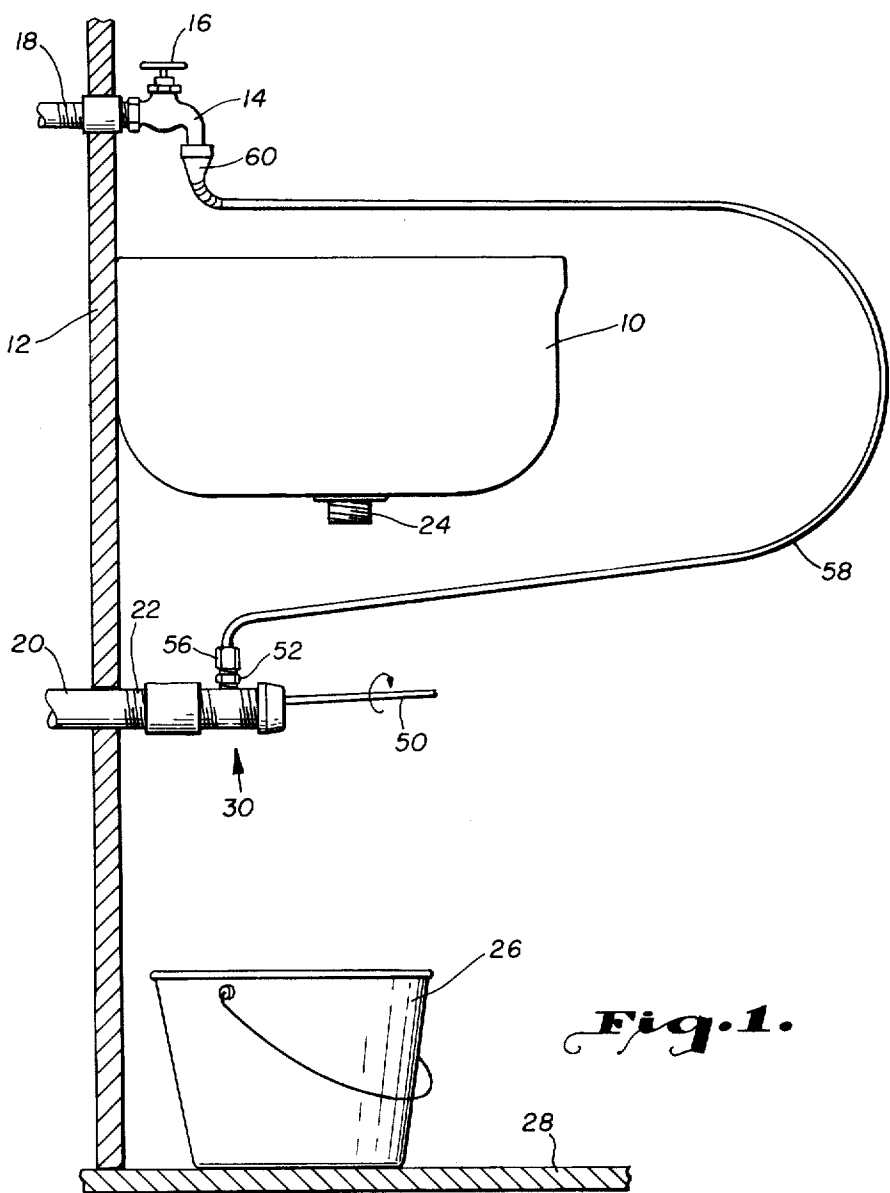


Fig. 1.

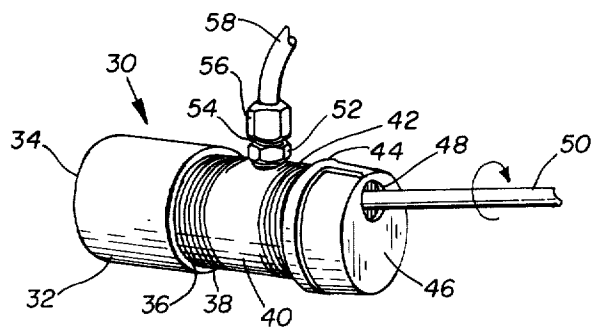


Fig. 2.

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FIELD OF THE INVENTION

The present invention relates to a plumbing tool and more particularly a plumbing tool which will assist the plumber in feeding a rotary cable into a drain pipe, in determining the removal of the obstruction in the drain pipe, and in cleaning the rotary cable as it is withdrawn from the drain pipe after the obstruction has been removed.

DESCRIPTION OF THE PRIOR ART

Numerous devices have been proposed in the past to assist the plumber in feeding a rotary cleaning tool into a drain pipe. Some devices, such as those disclosed in U.S. Pat. No. 1,796,340 also include the introduction of water into and through the plumbing tool; however, in connection with the last mentioned patent, specific provision is made for a packing to exclude the possibility of leakage of water. In the present invention the water will leak out of the opening to indicate that the obstruction is still there, which feature is not shown or suggested in the prior art.

SUMMARY OF THE INVENTION

The present invention involves a plumbing tool in the form of an elongated cylindrical member which has an externally threaded open end at one end thereof, and closed end at the opposite end thereof except for a hole which permits the introduction of a rotary cleaning tool through the plumbing tool and into the drain pipe. The cylindrical member is also provided with a conduit connecting at right angles to the cylindrical member intermediate the ends thereof. The conduit connects with a hose the other end of which is adapted to connect to a faucet. When the plumber feels that he has removed the obstruction after feeding the rotary cable into the drain pipe, he turns on the faucet; if no water runs out of the hole in the plumbing tool, he knows that the obstruction has been removed; if water does run out of the hole in the plumbing tool, the plumber knows that he must feed the cable further into the drain pipe; a pail can be placed beneath the plumbing tool to catch any water that runs out of the hole.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevational view, with certain parts in section, showing the plumbing tool of the present invention connected to a drain system for the cleaning thereof; and

FIG. 2 is a perspective, on a slightly enlarged scale, of the plumbing tool itself and showing a portion of the rotary cable which is fed therethrough.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings in detail, FIG. 1 shows a conventional sink 10 attached to a wall 12 in any convenient or conventional manner (not shown). Disposed above the sink is shown a faucet 14 having a conventional handle 16. The faucet connects to a pipe 18 through the wall and to a source (not shown) of hot or cold water in a conventional manner. A drain pipe 20 is also shown projecting through the wall 12. The left-hand end of the drain pipe 20 would connect with the drain system (not shown) in any convenient manner

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(not shown). The right-hand end 22 of the drain pipe portion 20 is threaded as shown and would normally connect with a U-tube (not shown) the other end of which would connect with the sink connector 24.

For the purpose of describing the present invention, it will be assumed that the aforementioned U-tube has been removed and a pail 26 is placed on the floor 28 to catch any drippings from the connector 24 or from the end of the drain pipe 20. The plumbing tool 30 of the present invention can now be attached to the threaded end 22 of the drain pipe 20 as will be described below.

Referring now to FIG. 2, the plumbing tool 30 of the present invention includes a connector 32 having a left-hand end 34 which is internally threaded (not shown) to permit attachment to the threaded end 22 of the drain pipe 20. The right-hand end 36 of the connector 32 is also internally threaded (not shown) so as to threadedly engage the threaded end 38 of the large nipple 40. The right-hand end 42 of the nipple 40 is also threaded so as to engage the inner threaded end 44 of a cap 46. The cap 46 is provided with a hole 48 to prevent the introduction of a rotary cable 50 into the plumbing tool and through the drain 20. The rotary cable 50 will have a cleaning or cutting attachment (not shown) attached to the left-hand end for cleaning the drain 20 as the cable 50 is rotated.

The large nipple has a smaller nipple 52 attached at the right thereto. The lower end of the nipple 52 is threaded and engages a threaded hole in the wall of the large nipple 40. The upper end 54 of the nipple 52 is also threaded and engages the inner threaded end of a hose connector 56 which is attached to a hose 58. The opposite end of the hose 58 is attached to a connector or adapter 60 which is adapted to fit over the end of the faucet 14.

In operation, an obstruction in the drain 20 is removed as follows: The U-tube (not shown) referred to above has been removed and the assembly of the tool 30 shown in FIG. 2 is attached to the end of the drain pipe 20 by screwing the threaded end 34 of the coupling 32 over the threaded end 22. Thereafter, the adapter 60 is attached to the faucet 14. The rotary cable 50 is fitted into the nipple 40 through the hole 48 and the rotary tool 50 is rotated and advanced into the drain pipe 20 and into the drain system (not shown) connected therewith. The cable 50 is continually rotated and advanced until the plumber senses that he has reached and removed the obstruction. At this point, the handle 16 of the faucet 14 is turned on to allow water to pass through the hose 58 into the tool 30. If the obstruction has been removed, this water will flow through the drain pipe 20; if the obstruction has not been removed or if an additional obstruction is present, the water will flow out of the opening 48 and into the bucket 26. Of course, if the obstruction has not been removed, the faucet 14 is turned off and the cable 50 is further rotated and advanced until the obstruction is removed. Testing for removal of the obstruction will be the same as described above.

After the obstruction has been removed from the drain pipe 20, as indicated by the flowing water test described above, the water is left on and the cable 50 is withdrawn (preferably while rotating) from the drain pipe 20 through the opening 48 and the cap 46. The running of the water during the withdrawal operation

serves to wash debris from the cable 50 so that the same is relatively clean.

Thus, it appears that the present invention provides a plumber's tool 30 comprising a hollow cylindrical member composed of the connector 32, the large nipple 40, and the cap 46. The resulting cylindrical member has a threaded opening 34 for attachment to a drain pipe. The opposite end of the resulting cylindrical member is closed except for the hole 48 therein. The small nipple 52 constitutes a conduit connecting at right angles to the resulting cylindrical member. The hole 48 permits the introduction of a rotary cleaning tool through the plumbing tool and through the drain 20. It should be noted that the hole 48 is sufficiently large to permit the introduction of this rotary plumbing tool. During the operation of the rotary plumbing tool, the rotary cable will pass through the hole 48. Thus the cable 50 is loosely received in the hole 48 so that water can pass out of the hole when the drain 20 remains obstructed.

Whereas the present invention has been described in particular relation to the drawings attached hereto, it should be understood that other and further modifications, apart from those shown or suggested herein, may be made within the spirit and scope of this invention.

What is claimed is:

1. A plumber's tool comprising a hollow cylindrical

member having a threaded opening at one thereof for attachment to a drain pipe, the opposite end of said member being closed except for a hole therein for loosely receiving therethrough a rotary cable for a rotary cleaning tool, a conduit connected to said cylindrical member intermediate the ends thereof and at right angles thereto, and a hose connected at one end to said conduit and having an adapter at the other end thereof engagable with a faucet.

2. A plumber's tool as set forth in claim 1 wherein said cylindrical member comprises a cylindrical connector having threaded openings at the opposite ends thereof, one of said threaded openings of said cylindrical connector constituting the threaded opening for attachment to said drain pipe, a large cylindrical nipple having externally threaded ends, one threaded end of which is received in the threaded opening at the opposite end of said connector from said drain pipe, a cap having a threaded opening received on said large nipple at the threaded end thereof opposite from said cylindrical connector, the other end of said cap having said closed end with said hole therein, and a small nipple threaded at both ends, one end of which is received in a threaded opening in said large nipple intermediate the ends thereof, said small nipple constituting said conduit.

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